

## **EOC Compatibility Test 2 (ECT2)**

### Test Objectives:

The second ECT test is an AM-1 Housekeeping test with the spacecraft at the SCS in Valley Forge, Pa.. However the communications will go through EDOS and TDRSS rather than directly to the SCS. This ECT test will be performed with S-Band

### Primary Objectives:

- Verify that the EOC can command the spacecraft at all command rates through the SN.
- Verify that the EOC can receive and process all telemetry rates received through the SN.
- Verify that the EOC can receive and process solid state recorder dumps through the SN.
- Verify that the EOC can receive and process spacecraft memory loads and dumps through the SN.
- Verify that the EOC can compute spacecraft clock correlation corrections from spacecraft telemetry and SN provided data.

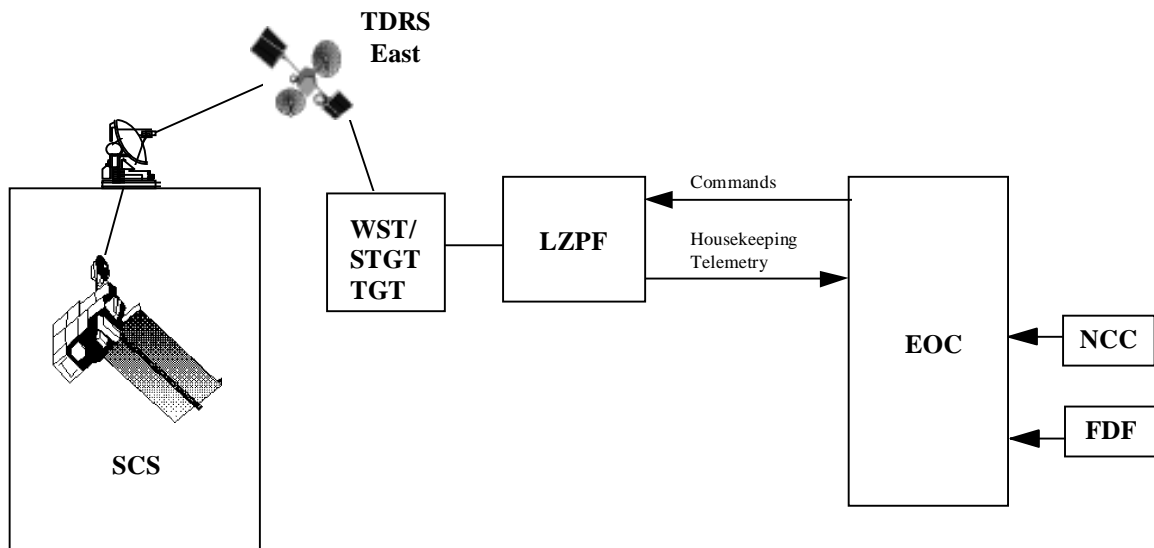
### Secondary Objectives:

- Verify the capability of the ground system to remove duplicate housekeeping packets.
- Verify that the EOC can send commands and receive housekeeping data for the AM-1 spacecraft through TDRSS.
- Verify that the EOC can send memory loads to the AM-1 spacecraft.
- Provide the ISTs with an early opportunity to participate in a ground system test.

### Requirements to be Verified:

**TBD**

### Test Configuration:



### Participants and Support Requirements:

#### Participants:

Lockheed - Martin: S/C I&T  
FOT

EDOS M&O

EBnet

EOC M&O

I&T

EOC Developer

Nascom

NCC/SN

#### Communications:

Voice: - SCAMA drop to Spacecraft I&T facility (designation - **TBD**)  
SCAMA between NCC and EOC (designation **TBD**)

Data: EBnet - EDOS connection  
EDOS - WSC connection  
EBnet - EOC connection

## Equipment and Software:

EOC: Equipment to support command and telemetry logical strings

Real Time Server

Data Server

Workstation for Command Activity Controller

Workstation for Spacecraft Evaluator

User Interface Sub-system software

Telemetry Sub-system software

Command and Command Management Sub-system software

Resource Management Sub-system software

Project Data Base

AM-1 Spacecraft I&T Facility

AM-1 Spacecraft

I&T console (nomenclature?)

Roof top antenna

Test Tools - **TBD**

Test Data:

Description / Characteristics	Source	File/script name & Location
AM-1 Spacecraft Commands  (Command Rate = ??)	FOT	(Expect to have several command sequences defined, with each sequence being implemented in an ECL procedure)
AM-1 Spacecraft Housekeeping Telemetry  (16 kbps ??)	AM-1 Spacecraft	
Pointing Vectors from SDVF to TDRSS (East ??)	FDF	

Test Case Descriptions:

Scenario to be defined at future ECT planning meetings.

Test Procedures:

**(TBS)**